Regulation of TORC2 complex in Dictyostelium discoideum

Khanna, Ankita

Stellingen behorende bij het proefschrift van Ankita Khanna

1) The heterotrimeric G proteins (chapter 5) and RasC (chapter 4) bind to distinct TORC2 components and are known to be involved in regulation of ACA activity. (Lim CJ *et al*., (2001) EMBO J **20:** 4490-4499)

2) RasC and Rap1 control TORC2 activity through binding of distinct TORC2 components, TOR and RIP3, respectively. (Chapter 4)

3) Cells lacking any of the TORC2 components: *pia, lst8 or rip3*, have strong chemotaxis defects, developmental defects and are unable to fully activate PKBA and PKBR1, thus, suggesting that all components are necessary to fully activate the complex. (Lee S *et al*., (2005) Mol Biol Cell **16:** 4572-4583)

4) In life, be positive even if your blood group is not B +ve.

5) The signaling enzymes PI3K, TorC2, PLA2 and sGC are not required for Ras activation and chemotaxis to folate or to steep gradients of cAMP, but they provide a memory of direction and improved orientation of the cell, which together increase the sensitivity about 150-fold for chemotaxis in shallow cAMP gradients. (Kortholt *et al*., (2011) EMBO Rep **12:** 1273-1279)

6) CNB (Cyclic Nucleotide Binding) domain of GbpD is a misnomer since it does not bind to cyclic nucleotides but binds to phospholipids instead. (Chapter 6)

7) A positive feedback loop of GbpD/Rap/PI3K/PIP3/GbpD is responsible for the very strong phenotype of $GbpD^{O.E}$ (Chapter 6).

8) HC (High Caffeine) may be universally defined as the official minimal medium for PhD students.

9) TORC2 regulates chemotaxis in *Dictyostelium* via Rip3-Rap1 interaction. (Chapter 4)

10) Gezellig: Het woord omvat het hart van de Nederlandse cultuur, zoals de Nederlanders hebben de neiging om alle dingen te houden gezellig!